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An child-focused educational program allows INR stability and safety in children treated with VKA.

Bonnet D. (1), Bajolle F. (1) , Lasne D. (2), Elie C. (3) , Boudjemline Y. (1)
Centre de Référence Malformations Cardiaques Congénitales Complexes – M3C, Necker Enfants Malades, Université Paris Descartes, Sorbonne Paris Cité, Paris France (1); Université Paris Descartes, Inserm, UMR U765 - Laboratoire d'Hématologie AP-HP Hôpital Necker-Enfants Malades, Paris, France (2); Université Paris Descartes, Service de biostatistique, AP-HP Hôpital Necker-Enfants Malades, Paris, France (3)

Background: Improvement of anticoagulation control in children using a point-of-care International Normalized Ratio (POC INR) monitor in the home setting requires a robust parent/patient education program (EP).
Objective: To evaluate prospectively the efficiency of a child-focused EP based on group sessions for the children and their families using specific educational tools including a specially adapted game.
Patients and Methods: All children receiving VKA and their parents were proposed to follow a standardized training program (initial and reinforcement sessions) with medical support. Program efficacy was assessed by the analysis of (i) the time spent in the therapeutic range (TTR), (ii) the compliance with the treatment and INR control, (iii) VKA adverse events, (iv) patient satisfaction and (v) the accuracy of POC INR vs. laboratory INR.
Results: We enrolled 104 children (median age 8 years [3 months to 17 years]) receiving VKA for cardiac diseases in 96%. Median follow-up was 481 days (range 70-1001). The median TTR was 81.41% (36 to 100%). During reinforcement session, the game evaluated a very good knowledge of VKA treatment of patients and their family and their excellent capacity to react under numerous given situations. There were one severe haemorrhage and no thrombosis. 102 families were satisfied and wanted to continue this EP. Observance was adequate as POC INR was performed only when requested and parents did not perform additional INR controls. POC INR and laboratory INR were identical.
Conclusion: No patients of our series were excluded for any reasons and we consider that this inclusiveness is a valuable asset of our self-testing EP associated to an effective system of medical supervision. The TTR is among the highest TTR observed for home monitoring in paediatric studies and it is sustainable between 2008 and 2011. The key factor in the success of our EP is the empowerment conferred upon the children and their families considered as mature individuals responsible for their own health concerns. Moreover, the game allows the medical team to evaluate not only the patient's knowledge about his treatment and the practice of self-testing, but also the patient's adaptability to specific situations.